REMARKS

Claims 1-29, 31 and 35-36 are all the claims pending in the application. This Amendment amends claims 1-6, 9, 13, 17-23, 29, and 31, adds claims 35 and 36, cancels claims 30 and 32-34, and addresses each point of rejection raised by the Examiner. Favorable reconsideration is respectfully requested.

Personal Interview of May 7, 2003

At the interview, agreement was reached to the extent that Applicants' representative agreed to present claim amendments to simplify interpretation of various limitations. In particular, streamlining the claims was discussed.

Applicants' representative explained why independent claims 1, 13, and 18, as well the embodiment expressed in dependent claim 3, when viewed in their entirety, are patentable over the applied art. Emphasis was placed on differences between independent claims 1 and 13.

Chang *et al.* and Minami *et al.* were also discussed. An illustration, presented herein, was used to explain why the power series of Minami is incompatible with the time modulation scheme of Chang.

The Examiner asserted that the 3x3 time-modulated image of Chang anticipates the claims, since the 3x3 image expresses tones in three or more levels and includes a plurality of picture elements.

The arguments presented at the interview are included herein, together with supplemental explanation in view of the Examiner's comments. As explained below, substantive amendments have been made to independent claims 1 and 18. However, while independent claim 13 has been amended, the scope of that claim remains unchanged.

Claim Amendments

As part of the effort to streamline the claims, "spatially adjacent" is moved from a "wherein" clause into recitations of the series of cells in independent claims 1 and 13. These amendments do not change the scope of the claims. Applicants added "spatially adjacent" to the claims in an attempt to explicitly distinguish time modulation. As explained in past submissions, the series of cells as originally claimed readily distinguished over time modulation in the applied art. If the "series of cells" were viewed as corresponding to one page of a time-modulated series such as that presented in Chang, the "expresses tones in multiple levels" limitation is not met, since each page of the series is only black-or-white. Although the claimed cells may express the levels of gray using time modulation (*e.g.*, claim 5), the claimed "series" of cells is one of space, rather than time. The series can be arranged in any number of ways, including for example, next to each other across a surface of a screen, or one behind another, as is known in the art for RGB display systems.

In a further effort to streamline the claims, Applicants move "each cell of said series of cells emits light in a same color" from a "wherein" clause into the initial recitation of the series of cells in independent claims 1 and 13. This amendment does not change the scope of the claims.

In a further effort to simplify interpretation, Applicants replace "multiple levels" with "three or more" in the claims. Applicants submit that this does not alter the scope of the claims, as the specification explicitly defines "multiple levels" on page 8, lines 10-11 as meaning "three or more levels." *See* MPEP § 2111.01 ("The words of a claim must be given their 'plain meaning' unless they are defined in the specification"). Accordingly, the claims already required three or more levels.

Further, Applicants amend claim 1 to emphasize the relationship between the monochromatic image signal and the picture elements of the display. In particular, claim 1 is amended as follows:

"a cell signal generating means which generates, based on a monochromatic image signal indicating an output luminance <u>of each picture element</u> of a monochromatic image, a cell signal for each <u>spatially adjacent</u> cell <u>of a respective picture element of said display device, said cell signal determining</u> [~~which determines~~] an output tone level of the cell, so that an average of the output luminances of all the cells within each respective picture element correspond to an output luminance of the respective picture element, <u>wherein each respective picture element of said display device corresponds to a picture element of said monochromatic image</u>".

Further, Applicants amend the drive means of claim 13 as follows:

"a drive means which drives the cells <u>of a respective picture element</u> so that the output level difference per one level <u>of said three or more levels</u> differs from each other between said at least two of said series of cells".

Applicants submit that this amendment to the drive means of claim 13 is editorial in nature, and does not alter the scope of the claim when the amendment is viewed in context. In particular, "said at least two of said series of cells" was already established in the claim as relating a picture element, and that the "one level" related to the three or more (*i.e.,* multiple) levels was implicit.

Further, claim 9 has been amended to describe the number of tones represented in the monochromatic image signal after tone number conversion. New claim 37 has been added to depend from claim 9 as a further limitation.

Further, claim 17 has been amended to describe the "given signal level."

Further, independent claim 18, which was formerly an independent claim, has been amended to depend from claim 1. Duplicative limitations in claim 18 and its dependencies have been deleted.

Additionally, claims 35 and 36 have been added, depending from claims 18 and 29, and requiring that the displayed color is blue, which is within the claimed CIE chromaticity range.

Entry and consideration of these amendments are respectfully requested.

Rejections

Claims 1-34 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Chang in view of Minami.

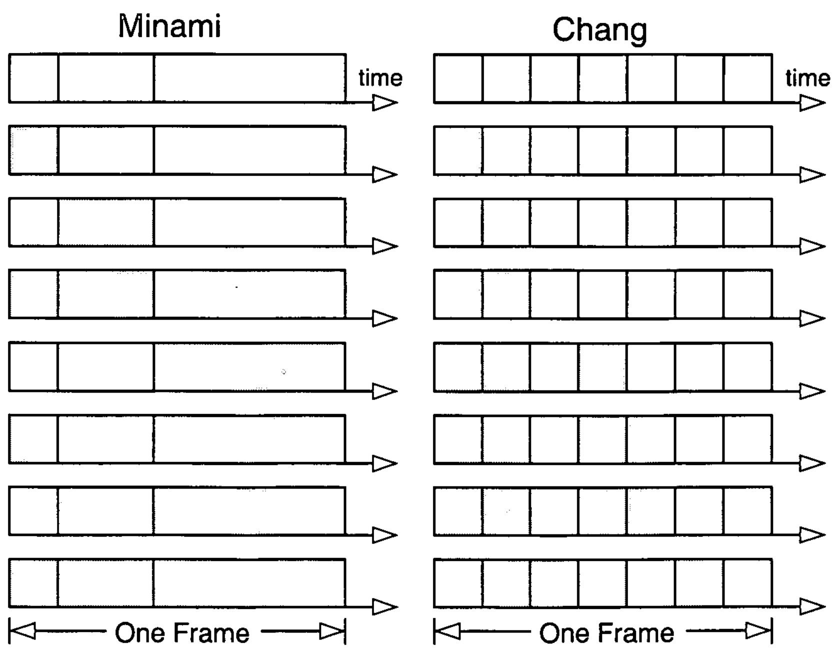
In Chang, the exemplary resolution of the image is 3 x 3. *See* Chang column 4, lines 9-11. Thus, in Figs. 1 and 2, there are nine picture elements, each picture element addressing a single cell of a monochrome screen. The cells in Chang are monochrome, each cell having N-levels of simulated grayscale formed from N-1 pages. Each cell in Chang is individually addressed, such that an output luminance/level must be specified for each of the 9 cells of the 3x3 image. *See* Chang column 3, line 45 to column 4, line 42. Specifically, each cell is addressed based on its X-Y coordinate in the image, using a "mod" function to determine the on-off page sequence of each cell for a respective level of grayscale. In Figure 2 of Chang, all 9 cells are set to a same gray level to demonstrate how the mod function assigns the on-off sequence across the pages to the various cell.

In Chang, the monochrome image is stored in ROM module 12, and is output as a grayscale image to the CPU 11. *See* column 5, lines 22-23. The CPU converts the monochrome image into (N-1) pages of on-and-off signals (V_{rm3}, V_{rm0}) that are sequentially applied to the LCD to simulate a desired gray level for each picture element of the image. *See* column 5, lines 43-53. The pages are generated by applying a "mod" function to generate the series of on-and-off pages for each cell of the 3 x 3 image, based on the gray level needed for each respective picture element of the grayscale image. *See* column 3, line 37 to column 4, line 42. Each page is sequentially transferred LCD row and column drivers 16 and 17 so as to display the pages one-at-a-time on the LCD screen 18. *See* column 5, lines 32-35. The waveforms of the signals FR, FP, LP, and SCP, are used for synchronization. *See* column 5, lines 36-42.

Minami discloses a method for reducing dynamic false contours on displays utilizing a power series of luminescence to produce each frame of video images.

The Examiner's stated support for combining Chang and Minami is based upon the Abstract and Fig. 1 of Minami, with nothing to suggest consideration of what Minami is actually teaching, whether the combination would actually work, or whether the teachings of Minami are even relevant to Chang.

In Chang, the frames are broken into a series of pages displayed at a fixed rate, whereas Minami is directed to systems which use power sequences. The problem solved by Minami is a problem for power-sequence based devices, of which Chang is not. For example, consider a three-bit (eight level) examples of a single picture element of a single frame according to each reference.



In Minami, three bits directly control three time-based sub-fields. Each subfield is directly associated with a bit: least-significant corresponding to the subfield having a shortest time and most-significant corresponding to the subfield having the longest time. The first sub-field has a time t; the second subfield has a time 2t; the third sub-field has a time 4t. The length of the frame in time is therefore 7t.

In comparison, Chang employs sub-fields each having a time t. The length of the frame in time is again 7t. Whereas the least-significant-to-most-significant bits in a power series bits

directly corresponds to the least-significant-to-most-significant sub-field, in conventional time-modulation, the numerical value of the bits corresponds to the number of sub-fields active in a frame. For example, 111 in a power series could mean On-On-On, whereas 111 in time modulation could mean 7 x ON. In the alternative, it might mean Off-Off-Off and 7 x Off. The invention of Chang is quasi-randomizing the order of the ons-and-offs within each frame (not shown) so that the order varies between pixels.

The problem solved by Minami happens when motion occurs on a power-series display, causing a band shape to be perceived by a viewer. This band is a specific characteristic of power sequences (1, 2, 4, 8,...) as a result of the different lengths-of-time of the subfields. If a picture element moves from point A to point B with a fluctuation in luminance level, the arrangement of sub-fields affects human perception, as shown by the "R" lines in Fig. 4 of Minami. *See, e.g.,* column 2, line 25 to column 3, line 11.

In comparison, Chang uses sub-fields of equal duration, and teaches to mix up the on-off sequence across (in terms of time) each cell according to screen location (X-Y) and a "mod" function. No power sequence is employed, and even with the benefit of hindsight, it is not clear what would be necessary to modify the "mod" function of Chang to effectively utilize the power-sequence-based solution in Minami. Further, based on the differences of operation (*i.e.,* power series versus simple time modulation, and Chang's use of quasi-randomization), there is no basis for concluding that Chang even experiences dynamic false contour. Accordingly, there would be absolutely no reason to apply the teachings of Minami to Chang, even with the benefit of hindsight.

For at least this reason, the claims are patentable under 35 U.S.C. § 103(a) over the combination of Minami and Chang.

Further, Applicants offer the following remarks:

<u>Claim 1</u>. That Fig. 2 of Chang shows groupings of 9 cells each having the same level of grayscale is irrelevant to claim 1. There are none of the claimed relationships between a picture element of the 3 x 3 image of Chang and the claimed series of cells. Each spatially adjacent cell

is Chang corresponds to a single picture element of the image stored in ROM 12. Claim 1 requires:

> a display device comprising a plurality of picture elements, each picture element comprising a series of spatially adjacent cells, each cell emitting light in a same color and expressing tones in three or more levels; and
>
> a cell signal generating means which generates, based on a monochromatic image signal indicating an output luminance of each picture element of a monochromatic image, a cell signal for each spatially adjacent cell of a respective picture element of said display device, said cell signal determining an output tone level of the cell, so that an average of the output luminances of all the cells within each respective picture element correspond to an output luminance of the respective picture element,
>
> wherein each respective picture element of said display device corresponds to a picture element of said monochromatic image, and
>
> wherein the output luminances of the plurality of picture elements of said display device express said monochromatic image.

Consider the relationship between the picture elements of the display and the picture elements of the image signal. In Chang, the resolution of the image is 3 x 3. The original 3 x 3 grayscale image is stored in the ROM module 12. In the examples, each pixel (*i.e.,* picture element) expresses a same color (*i.e.,* gray), expressing the tones of gray in four levels (Gray level 0 to 3).

The original grayscale image stored in the ROM module 12, and is transferred to CPU 11 for image processing. This transfer presumably involves some form of an image signal. The CPU 11 converts each frame of the image into a series of black-and-white images (*i.e.,* pages) on a pixel-by-pixel basis (*i.e.,* element-by-element). When the black-and-white images are rapidly displayed in sequence, the grayscale image is simulated.

If claim 1 allowed for one cell per picture element, Chang would be relevant to the limitations of claim 1. However, claim 1 requires that each picture element comprises a series of spatially adjacent cells. In other words, there is a one-to-x relationship between one picture element of the monochromatic image and the series of x cells expressing that element. Chang only teaches one cell per picture element (*i.e.,* cell = picture element = pixel).

The claimed series of spatially adjacent cells is not an arbitrary grouping, as is the 3 x 3 pixel array of Chang. Rather, the cell signal generating means generates a cell signal for each cell of the series of spatially adjacent cells of a picture element based on a monochromatic image signal indicating an output luminance for that picture element.

Moreover, the output luminances of all the cells within a respective picture element correspond to an output luminance of the respective picture element, with each respective picture element corresponding to a picture element of the monochromatic image indicated by the monochromatic image signal. In comparison, in Chang, each picture element of the monochromatic image corresponds to a specific cell. Each picture element of the image corresponds to the level of grayscale assigned to a respective cell. Thus, in Chang, there is a one-to-one relationship between one picture element of a monochromatic image and the one cell expressing that element.

Further, the FR, FP, LP, and SCP signals of Minami are used for synchronization (*see* column 5, lines 36-42), which does not suggest "a monochromatic image signal indicating output luminance of each picture element," nor the "cell signal ... which determines an output tone level of the cell" as required by claim 1. Synchronization signals exist without regard to the information being displayed, such that no tone information is contained therein. The Examiner suggested otherwise in the Office Action.

Nor does Minami teach or suggest at least the above described features of independent claim 1.

<u>Claim 3</u> requires that the cell signals are generated so that the output luminances of the spatially adjacent cells of a respective picture element change at an inclination according the a

tone gradient vector of picture elements around the picture element corresponding to the cells. For example, if an adjacent picture element on the left is light, and an adjacent picture element on the right is dark, and the series of cells are arranged left to right, then the left most cell would be lightest, and the right most cell would be darkest, the gradient of the cells being arranged according to the tone gradient vector. In comparison, Chang offers no teaching or suggestion of such consideration of a tone gradient, nor to even consider the level of gray scale of surrounding cells/picture elements. The method of Chang resolves the blinking effect on a user's eyes by mixing up the black-and-white page assignments for each cell/picture element using a "mod" operator, independently for each cell/picture element. No consideration is given to either the black-or-white state of surrounding cells/picture elements, nor to the overall gray level of surrounding cells/picture elements. Nor does Minami teach such a feature.

Claim 6. Claim 6 provides a further opportunity to contrast Chang. As argued above, each picture element of Chang comprises a signal cell, whereas claim 1 requires a series of cells for each picture element. At the interview, the Examiner alternated in his constructions of Chang, at times seeming to argue that pages of Chang constituted the claimed series of cells, while at the same time acknowledging the difference between temporally adjacent and spatially adjacent. Note, however, that each "page" of Chang is black-or-white (*i.e.,* two levels), such that even if the "spatial adjacent" requirement of the claims is ignored, an individual page of the temporal series can not fulfill the requirement of the claims that each cell expresses tones in three-or-more levels--Chang requires a frame (*i.e.,* a temporal series of pages) to express three-or-more levels.

Consider now claim 6, which requires that each cell signal, which determines an output tone level of the respective cell, be time modulated by frame. In other words, as claim 6, there are both dimensions of time and space, relative to the output luminance of each picture element. To achieve a respective level of output tone (*e.g.,* grayscale), each cell is time modulated by frame. The output luminance for picture element is the average of the luminance provided by the time-modulated, spatially adjacent series of cells. This output luminance of the series of cells

corresponds to an output luminance indicated for the picture element by the monochromatic image being expressed.

The closest thing in Chang to the claimed cell signals would be the sequence of the pages storing on-and-off patterns generated for each picture element based on an application of the "mod" function. Notably, for a time-modulation implementation of the present invention, the "mod" function of Chang could be applied by the cell signal generating means to avoid any "blinking effect to the user's eyes." However, while both Chang and claim 6 utilize time modulation by frame to achieve a particular output tone level, the claimed invention utilizes a series of cells to express a picture element of the monochromatic image, whereas Chang uses a single cell.

Claim 9. Claim 9 requires a tone number conversion means which carries out a tone number conversion processing on an original monochromatic image signal, generating the monochromatic image signal utilized by the cell signal generating means. Claim 9 has been amended to elaborate on this function. Specifically, the tone number conversion means limits the monochromatic image signal utilized by the cell signal generating means to a number of tones which the display device can express. In other words, tone number conversion means at least assures that number of tones that a picture element can express in the image signal does not exceed the capabilities of the display. Neither Chang nor Minami suggest such a feature.

Claim 13. With regard to independent claim 13, no indication is provided by the Examiner as to what the Examiner's basis for rejection actually is, in view of the differences between claims 1 and 13.

Claim 13 again requires that each picture element comprises a series of spatially adjacent cells. At least two cells of the series has a different maximum output levels.

As explained at the interview, this difference in maximum output levels can enable a display to express many more levels of gray per picture element than is possible with a conventional display.

For example, consider the example in Chang producing four levels of gray on an LCD. The numbers of gray that can be expressed per pixel is dictated by how fast the display can transition from black-to-white per frame. The frame rate (*e.g.,* frames/second) is presumably dictated by the characteristics of the human eye. Let us assume that due to hardware limitations of the LCD utilized, that four levels of gray-per-frame is all this LCD can handle.

For demonstration, equate an arbitrary grouping of pixels in Chang with the claimed series of cells. (To avoid confusion, please note that this is contrary to the argument presented with regard to claim 1, as claim 1 and claim 13 have different limitations; moreover, it does not work for the limitations of claim 13 either, but is being used here for demonstrative purposes based on statements by the Examiner at the interview; why it does not work for claim 13 will become more apparent below). Each pixel of the grouping can display the same four levels per frame, and has a same maximum output level (white = gray level 3). Thus, Chang does not meet the requirement of claim 13 that two cells have maximum output levels different from each other. Again note that tones "in three or more levels" in Chang are produced by frames, such that an individual black-and-white page is not related to the claim. Moreover, even for black-and-white, the maximum output level is still white (*i.e.,* the same; not different).

Moreover, the claim requires the drive means to drive the cells of a respective picture element so that the output level difference per one level of the three-or-more levels differs from each other between at least two cells of the series of cells. At this point, the analogy with an arbitrary grouping of pixels in Chang completely breaks down, as demonstrated by either Figs. 1 or 2 of Chang. For any of the levels of gray that can be expressed per frame, each pixel has the same output level difference per one level, whereas the claim requires the output level difference per one level to be different. For example, if black is level zero, then the first level in Chang is dark gray. This is demonstrative of a difference of one level. However, the output level for any two pixels is the same for both black, and for dark gray, such that the level difference per one level between black and dark gray is the same for both pixels. Thus, an arbitrary grouping of pixels in Chang does not satisfy that the output level difference per one level differs between at least two cells of the series.

Now consider the advantages that the claimed invention offers to a display such as Chang. If the display of Chang can only generate three levels per frame, then ordinarily, the maximum number of levels that can be displayed is four. However, by expressing each picture element by a series of cells having maximum output levels different from each other, a picture element can now achieve a greater number of levels of gray in the same number of pages.

For example, one cell has a maximum level of white for "level 3", whereas another cell has a maximum level between white and black for a same "level 3." By having the drive means coordinate these two cells to express a picture element, the levels of gradation that each picture element can express becomes more than four using the same three pages. A 2-bit display as shown in Chang would be able to display images having more than 2 bits of tone information per picture element. Even if the display hardware technology is limited to fixed number levels of tones that can be expressed per frame due to, for instance, hardware limits (*e.g.,* switching speed in an LCD), by utilizing the invention of claim 13, the number of tones per frame that can be expressed are increased beyond what would otherwise be possible. (If further explanation of this concept is required, please see the exemplary embodiments shown in Figs. 10A-12 of the present application.)

A similar analysis applies to the power series disclosed in Minami, to which the invention of claim 13 would also be applicable. Neither Chang nor Minami separately or combined, suggest the invention of claim 13.

Claim 18. Claim 18 now depends from claim 1. With regard to claim 18, the Examiner asserts that the "CIE chromaticity diagram is a standard diagram that is well know[n] in the art..." CIE chromaticity diagrams have been a standard for defining color since 1931. Thus, using a CIE chromaticity clearly defines the metes-and-bounds of claim 18 because of how well understood such diagrams are. Claim 18 requires a particular range of coordinates on the chromaticity diagram, which the Examiner has not addressed in rejecting claim 18. The fact that the diagram itself is well known is irrelevant to the invention defined by the claim. No clear basis for the rejection of claim 18 is offered, such that the rejection is improper.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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APPENDIX

Version With Markings To Show Changes Made

IN THE CLAIMS:

Claims 30 and 32-34 are canceled.

The claims are amended as follows:

1. (Currently Amended) A monochromatic image display system comprising:

a display device comprising a plurality of picture elements, each picture element comprising a series of spatially adjacent cells, each cell emitting light in a same color and expressing tones in [~~multiple~~] three or more levels; and

a cell signal generating means which generates, based on a monochromatic image signal indicating an output luminance of each picture element of a monochromatic image, a cell signal for each spatially adjacent cell of a respective picture element of said display device, said cell signal determining [~~which determines~~] an output tone level of the cell, so that an average of the output luminances of all the cells within each respective picture element correspond to an output luminance of the respective picture element,

wherein each respective picture element of said display device corresponds to a picture element of said monochromatic image, and

[~~wherein each cell of said series of cells emits light in a same color,~~]

wherein the output luminances of the plurality of picture elements of said display device express said monochromatic image [~~, and wherein the series of cells of a respective picture element expressing tones of the multiple levels are spatially adjacent~~].

2. (Currently Amended) A monochromatic image display system as defined in Claim 1 in which the cell signal generating means generates cell signals so that the output luminances of the cells of the respective picture element of said display device are substantially uniform.

3. (Currently Amended) A monochromatic image display system as defined in Claim 1 in which the cell signal generating means generates cell signals so that the output luminances of the cells of the respective picture element of the display device change at an inclination according to a tone gradient vector of picture elements around the respective picture element corresponding to the cells.

4. (Currently Amended) A monochromatic image display system as defined in Claim 1 in which the cell signal generating means intensity-modulates [~~the~~] input signal levels to the respective cells independently of each other.

5. (Currently Amended) A monochromatic image display system as defined in Claim 1 in which the cell signal generating means time-modulates [~~the~~] input signal levels to the respective cells independently of each other.

6. (Currently Amended) A monochromatic image display system as defined in Claim 5 in which the cell signal generating means time-modulates [~~the~~] input signal levels to the respective cells by frame.

9. (Currently Amended) A monochromatic image display system as defined in Claim 1 further comprising a tone number conversion means which carries out a tone number conversion processing on an input original monochromatic image signal, thereby generating said monochromatic image signal, wherein a number of tones represented by said monochromatic image signal is no greater than a number of tones which can be expressed by each respective picture element of said display device.

13. (Currently Amended) A monochromatic image display system comprising:

a display device comprising a plurality of picture elements, each picture element comprising a series of spatially adjacent cells, each cell emitting light in a same color and

expressing tones in [~~multiple~~] three or more levels, and at least two of said series of cells having maximum output levels different from each other; and

a drive means which drives the cells of a respective picture element so that the output level difference per one level of said three or more levels differs from each other between said at least two of said series of cells,

[~~wherein each cell of said series of cells emits light in a same color,~~]

wherein the plurality of picture elements express a monochromatic image [~~, and wherein the series of cells of a respective picture element expressing the tones of multiple levels are spatially adjacent~~].

17. (Currently Amended) A monochromatic image display system as defined in Claim 13 in which the display device is an organic EL panel in which said at least two cells for each picture element emit light in the same color at different luminances for a given signal level,

wherein said given signal level indicates an output luminance of the respective picture element having said at least two cells.

18. (Currently Amended) A [~~flat panel~~] monochromatic image display system as defined in claim 1, wherein said display device is further characterized as being [~~using~~] a flat panel-like display device, and [~~the display device comprising a series of cells, each cell of said series of cells emitting light in a same color,~~] is further characterized in that the display device is a monochromatic display device which makes a display in [~~a~~] said same color which falls within the region surrounded by points (0.174, 0), (0.4, 0.4) and (α, 0.4) as represented by co-ordinates (x, y) on a CIE chromaticity diagram,

wherein α represents the x-coordinate of the intersection of a spectrum locus and a straight line y=0.4 [~~, and wherein the series of cells of a respective picture element are spatially adjacent~~].

19. (Currently Amended) A [~~flat panel~~] monochromatic image display system as defined in Claim 18 in which the display device [~~is a display device which is provided with~~] further comprises at least one of elements including a substrate, a face plate, a diffuser panel, a color filter, a diffuser film, a collimator film, a prism film and a polarizing film which are colored to a predetermined color.

20. (Currently Amended) A [~~flat panel~~] monochromatic image display system as defined in Claim 18, [~~the display device further comprising a plurality of picture elements, each picture element comprising the series of cells, each cell expressing tones in multiple levels, and the plurality of picture elements expressing a monochromatic image, and there is provided~~] further comprising at least one of:

an area modulation means which controls the output luminance of each picture element by selectively turning on and off input signals to respective cells, for each picture element, independently of each other,

a time modulation means which drives the respective cells for each picture element in a time division system, and

an intensity modulation means which controls input signal levels to the respective cells for each picture element independently of each other,

wherein the cells are driven so that the maximum luminance of each picture element is in the range of $100cd/m^2$ to $10000cd/m^2$.

21. (Currently Amended) A [~~flat panel~~] monochromatic image display system as defined in Claim 20 in which the maximum luminance of each picture element is in the range of $500cd/m^2$ to $5000cd/m^2$.

22. (Currently Amended) A [~~flat panel~~] monochromatic image display system as defined in Claim 18 in which the display device is a liquid crystal panel.

23. (Currently Amended) A [~~flat panel~~] monochromatic image display system as defined in Claim 18 in which the display device is an organic EL panel.

29. (Currently Amended) A monochromatic image display system as defined in Claim 1, wherein said display device is a monochromatic display device which makes a display in [~~a~~] said same color which falls within a region surrounded by points (0.174, 0), (0.4, 0.4) and (α, 0.4) as represented by co-ordinates (x, y) on a CIE chromaticity diagram, wherein α represents an x-coordinate of an intersection of a spectrum locus with a straight line y=0.4.

31. (Curently Amended) A [~~flat panel~~] monochromatic image display system as defined in Claim 19, wherein said at least one of elements is formed of polyethylene terephthalate colored with an anthraquinone dye to a color of said predetermined color.

Claims 35-37 are added as new claims.